Capitol Region Water Nine Minimum Controls Plan Comments

The Environmental Protection Agency (EPA) has reviewed the Nine Minimum Controls Plan (NMC Plan) dated August 2019 prepared by Capital Region Water (CRW). This Plan appears to be in general conformance with USEPA's 1995 Combined Sewer Overflow (CSO) NMC Policy with some exceptions. Following are EPA's comments regarding the overall conformance of the CRW NMC Plan to CSO Policy requirements:

Minimum Control #1 – Review of Operation & Maintenance Program

Section 1.2.2.2 – Field Maintenance Equipment:

- Based on the equipment that CRW already has, a sewer cleaning crew should be able to conduct routine cleaning of at least 1,000 feet of sewers smaller than 24-inches in diameter each work day. Utilizing its three Vactor trucks 200 days per year, CRW should be able to perform routine cleaning on over 100 miles of sewers smaller than 24-inches in diameter each year. Typically, specialized equipment is required to clean larger sewers which many agencies subcontract out. Section 1.6.3 suggests that CRW also intends to subcontract the cleaning of its larger sewers. Therefore, it appears that CRW has enough equipment to clean all of its smaller sewers annually and still have additional capability using its jetter truck for cleaning "hot spot" blockage locations as needed.
- Based on the equipment that CRW owns, a sewer televising crew should be able to televise 1,000 to 1,500 feet per day of sewers smaller than 24-inches in diameter. Utilizing its single CCTV truck 100 days per year for routine sewer condition assessment, CRW should be able to perform 20 to 30 miles of CCTV per year. Typically, specialized equipment is required to televise larger sewers which many agencies subcontract. Section 1.6.3 suggests that CRW also intends to subcontract the inspection of its larger sewers. Therefore, it appears that CRW has enough equipment to televise its smaller sewers within four to five years and still have adequate resources for televising sewers in emergency situations.
- EPA requests that CRW document that there will be an adequate amount of personal protective equipment for the number of sewer cleaning, CCTV, CSO outfall inspection, and sewer maintenance crews that will be out in the field.

Section 1.2.3 – Remedial Work Prioritization:

- EPA concurs with the risk management and remediation prioritization protocols presented in Figures 1-3 and 1-4 respectively.

Section 1.4.1 – O&M of CSO Regulator Structures - Inspection Procedures/Schedules:

- The third paragraph on page 1-24, presents time frames required to complete the daily inspections of the CSI structures under different operational and site conditions. CRW needs to confirm they have appropriate number of field inspection crews employed to perform these daily inspections and the inspection procedures referenced in CRW's Operation & Maintenance Manual (OMM) Sections 4.1.3 through 4.1.6. Past conversations with CRW suggest that CRW expects a single inspection crew to

complete these daily inspections. Further, it appears that there are opportunities to automate all or part of this daily inspection process to both reduce labor cost and enhance responsiveness to environmental issues. EPA recommends that CRW consider the installation of remote-reading flow level sensors, such as "Smart Covers®" to continuously monitor flow regulator performance, particularly at larger CSO regulators and CSO outfall locations where there is potential for river/creek intrusion into the interceptor sewer system.

Section 1.5.1 – O&M of Outfalls/Backflow Prevention Gates - Inspection Procedures/Schedules:

- The third paragraph on page 1-27 discusses the potential for river/creek intrusion into the interceptor sewer system. EPA requests that CRW provide information on:
  - The locations where intrusions have occurred,
  - The three outfalls along Paxton Creek where diversion weir elevation is comparable to high water conditions,
  - The number of intrusions that have occurred at each of these locations over the past five years,
  - The circumstances causing each intrusion (i.e. stream level) at each location; and,
  - The mitigation measures CRW has taken or plans to undertake to prevent future intrusions, including the installation of automated real-time intrusion monitoring sensors.

Section 1.6.1 – O&M of Interceptors - Inspection Procedures/Schedules:

- The second paragraph of Section 1.6.3 indicates that CRW plans to clean and inspect its interceptors on a five-year cycle. This appears to be adequate to maintain the interceptors at their peak hydraulic performance. EPA requests that CRW also perform annual monitoring to identify locations in the interceptors where debris build-ups occur more rapidly and remove the debris from any locations when the build-up exceeds 15 percent of the height of the interceptor at those locations.

Section 1.7.1 – O&M of Pump Stations - Inspection Procedures/Schedules:

- The NMC Plan states that the Front Street and Spring Street Pump Stations are inspected four times per day in dry weather and six times per day in wet weather. EPA requires that CRW list all its pump stations even if they are located in the separate collection system. The NMC Plan further states that maintenance documentation requirements are presented in CRW OMM Section 4.3.9 and maintenance documentation forms and checklists are presented in NMC Plan Appendix A. EPA requests that CRW confirm the number of field inspection crews employed to perform these daily inspections.

Section 1.8.1 – O&M of Force Mains - Inspection Procedures/Schedules:

- The NMC Plan indicates that the Front Street and Spring Street Force Mains are walked "periodically" to look for leaks; however, "periodically" is not defined in the NMC Plan. The NMC Plan states that force main inspection forms are presented in Plan Appendix A. This information was not included in

the CRW NMC Plan and the O&M Manual that EPA was provided for review. EPA requests that CRW provide the meaning of "periodically." EPA requests that the Force Mains are walked at least once a year.

Section 1.9.1 – O&M of Collection System Sewers - Inspection Procedures/Schedules:

- The NMC Plan states that the "hot spot" cleaning locations are listed in Appendix A3.3. However, this information was not included in the CRW NMC Plan document that EPA was provided for review. EPA requests that CRW provides the "hot spot" list.
- In the third paragraph on page 1-35, CRW proposes to complete cleaning and CCTV of its entire collection system by the end of 2024. This schedule appears reasonable and will allow CRW to maximize the use of its own cleaning and CCTV equipment.

Section 1.9.3 – O&M of Collection System Sewers – Documentation of Current Control Practices:

- The NMC Plan states that collection system maintenance activity documentation forms are presented in Plan Appendix A. However, this information was not included in the CRW NMC Plan document that EPA was provided for review. EPA requires a copy of the collection system maintenance activity documentation forms.

Section 1.10.1 – O&M of Inlets/Catch Basins – Inspection Procedures/Schedules:

- CRW did not provide several documents for inlet/catch-basin cleaning and inspection procedures. This included "Inlet and Catch Basin Activities Checklist" presented in CRW OMM Section 4.7.4, and "Field Maintenance Information summary tables" discussed in Appendix A. EPA requires the checklist and summary tables.

- The first paragraph on page 1-37 states that: "CRW plans to complete all of the *inlet* cleaning and repair by the end of 2021." EPA concurs with this schedule, but *catch basins* are not discussed. CRW needs to confirm that catch basin cleaning and repair are also included.

Minimum Control #2: Maximum Use of the Collection System for Storage:

Section 2.2 – Combined Sewer Inspection:

- The CRW NMC Plan states that approximately 45,000-feet (7 percent) of its collection system is comprised of interceptor sewers 2-feet in diameter to 5-feet by 6-feet. The Plan further states that these interceptors have been cleaned and inspected in accordance with the requirements of the partial CD. The inspection revealed that approximately 34,000-feet of interceptors are in critical need of repair within the next five years. The CRW NMC Plan does not present a schedule for completing these repairs. EPA requests the revised NMC Plan have a copy of the schedule for completing these repairs. The CRW NMC Plan states that CRW will conduct future interceptor inspections on a five-

year cycle. Based on the information provided, this reinspection schedule appears to be adequate to monitor debris build-up and ongoing deterioration in those interceptors not repaired.

- The CRW NMC Plan cites CRW's daily CSO regulator and outfall inspection program as part of its effort to maximize the use of its collection system. Based on the information provided, the inspection program appears to be adequate to maintain the function of flow regulators provided that this program is properly staffed.

Section 2.4 – Adjustment of Regulator Settings:

- In the second full paragraph on page 2-6, the CRW NMC Plan states that adjustments of regulators have not yet been performed but are part of CRW's future collection system improvement program. EPA requests that CRW provide a schedule for performing the regulator adjustments, if not already included in the LTCP.

Section 2.5 – Installation of In-System Controls:

- In the first full paragraph on page 2-7, the CRW NMC Plan states that in-system flow controls have not yet been installed but are under consideration. EPA requests that CRW provide a location plan and completion schedule for installation of in-system controls.

Minimum Control #3 – Review & Modification of Industrial Pretreatment Programs:

- Based upon the information presented, it appears that the CRW NMC Plan is currently in conformance with USEPA's CSO Policy. The third full paragraph on page 3-9 states that CRW will annually review its industrial user inventory and make changes necessary to include new users and remove users no longer discharging to the CRW collection system. New non-domestic users will be required to submit an "Industrial Wastewater Discharge Application" for evaluation and appropriate action by CRW.

Minimum Control #4 – Maximize Flows to the POTWs:

- As noted under EPA's review of NMC #2, CRW has performed cleaning of its interceptor sewers to maximize their flow-carrying capacity, but CRW has not yet developed or implemented regulator modifications or in-system controls to maximize storage in CRW's collection system. Also as stated in the second paragraph of Section 4.2.3 on page 4-4, CRW has not yet identified or implemented infiltration and inflow reduction measures to reduce flows in its collection system. Finally, as stated in the second paragraph of Section 4.3.2 on page 4-5, CRW has not yet addressed increasing the wet-weather capacity of its wastewater treatment plant. Therefore, CRW is not currently in compliance with NMC #4. CRW may come into compliance upon implementation of the LTCP improvements.

Minimum Control #5 – Prohibiting CSO Discharges During Dry Weather:

- CRW's program of daily inspections of CSO regulator structures and outfalls are expected to be effective in achieving compliance with NMC #5 if that inspection effort is properly staffed.

Minimum Control #6 – Control of Solid and Floatable Material in CSO Discharges:

- As stated in Section 6.3.3: "CRW does not currently have end-of-pipe solids/floatables removal devices on their outfalls." Therefore, CRW is not in compliance with NMC #6. The second paragraph of Section 6.3.3 on page 6-4 states that: "During the implementation of CRW's Long Term Control Plan (LTCP), end-of-pipe controls such as nets and outfall booms will be incorporated in specific projects where they are determined to be feasible." This statement raises concern that CRW may not fully comply with NMC #6, even after LTCP improvements are completed. CRW is required to have solid and floatable controls on all CSO outfalls.

Minimum Control #7 – Pollution Prevention Programs:

- Based upon the information presented in the CRW NMC Plan, it appears that CRW is in compliance with the requirements of NMC #7.

Minimum Control #8 – Public Notification:

- Upon installation of the new CSO outfall signage presented in the CRW NMC Plan, it appears that CRW will be in compliance with the requirements of NMC #8. Once the new CSO signs are installed, CRW needs to notify EPA to confirm installation.

Minimum Control #9 – Inspection, Monitoring, and Reporting:

- Based upon the information presented in the CRW NMC Plan, it appears that CRW is in general compliance with the requirements of NMC #9.